

REMARKS

Claims 1-9 remain in the present application. Applicant respectfully requests further examination and reconsideration of the rejections based on the amendments and arguments set forth below.

Claim Rejections – 35 U.S.C. §103

Claims 1-9 are rejected in the present Office Action under 35 U.S.C. §103(a) as being unpatentable over United States Patent Number 6,306,317 to Richards et al. (hereafter referred to as “Richards”), in view of United States Patent Number 5,840,381 to Ohtsuka (hereafter referred to as “Ohtsuka”). Applicant has reviewed the cited references and respectfully submits that the embodiments of the present invention as recited in Claims 1-9 are not rendered obvious by Richards in view of Ohtsuka for the following reasons.

Applicant respectfully directs the Examiner to independent Claim 1 that recites a method for fabricating fire retardant composite panels, comprising (emphasis added):

creating a water-based slurry comprising a boron salt solution and a plurality of suspended boron salt particles;
adding an adhesive to a ligneous material; and
introducing said water-based slurry to said ligneous material for fire retarding thereof, wherein said introducing is performed separately from said adding.

Claims 2-9 depend from independent Claim 1 and recite further limitations to the claimed invention.

Applicant respectfully asserts that Richards fails to teach or suggest the limitation of “creating a water-based slurry comprising... suspended boron salt particles” as recited in independent Claim 1. As recited and described in the present application, a water-based slurry comprising suspended boron salt particles may be added to a ligneous material for fire retarding thereof.

In contrast to the claimed invention, Applicant understands Richards to teach the use of an aqueous solution providing fire retardant characteristics instead of a fire-retardant slurry as claimed (col. 1, lines 54-60). Applicant respectfully submits that aqueous solutions do not comprise suspended particles (e.g., solids) as does a slurry comprising suspended boron salt particles as claimed. Richards explicitly supports this by stating: “[t]he term ‘aqueous solution’ does not refer to a solid precipitate or foam, which are entirely distinct characteristics than an aqueous solution” (col. 11, 44-47). As such, Applicant respectfully submits that Richards teaches away from the claimed embodiments by teaching a solution without suspended boron salt particles instead of a water-based slurry comprising a plurality of boron salt particles as claimed.

Applicant respectfully submits that Ohtsuka, either alone or in combination with Richards, fails to cure the deficiencies of Richards discussed above with respect to independent Claim 1. Specifically, Ohtsuka also fails to teach or suggest the limitations of “creating a water-based slurry comprising... suspended boron salt particles” as recited in independent Claim 1.

In contrast to the claimed embodiments, Applicant understands Ohtsuka to teach a laminate sheet for reducing corrosion of metal *without* suspended boron salt particles. For example, Ohtsuka teaches that a laminate sheet

contains an inorganic acid metal salt layer made from “one or more salts selected from the group consisting of combinations of an inorganic acid selected from nitric acid, silicic acid, orthophosphoric acid, polyphosphoric acid, chromic acid, and carbonic acid with a metal selected from Na, Ca, Mg, K and Zn” (col. 5, lines 23-31). As such, Ohtsuka teaches away from the claimed embodiments by teaching an acid metal salt layer made from elements *other than* Boron as claimed.

Applicant respectfully asserts that Richards also fails to teach or suggest the limitation of “wherein said introducing is performed separately from said adding” as recited in independent Claim 1. As recited and described in the present application, adhesive is introduced to a ligneous material separately from the adding of a fire-retardant slurry.

In contrast to the claimed embodiments, Applicant understands Richards to teach that adhesive and fire-retardant composition are mixed together prior to applying the resulting mixture to the desired object (col. 11, lines 58-65). Since the adhesive and fire-retardant composition are mixed and then applied *together* to the object, Applicant respectfully submits that Richards teaches away from the claimed embodiments by teaching *simultaneous* application (due to pre-mixing) instead of *separate* application of an adhesive and fire-retardant composition as claimed.

Applicant respectfully submits that Ohtsuka, either alone or in combination with Richards, fails to cure the deficiencies of Richards discussed above with respect to independent Claim 1. Specifically, Ohtsuka also fails to teach or

suggest the limitations of “wherein said introducing is performed separately from said adding” as recited in independent Claim 1.

In contrast to the claimed embodiments, Applicant understands Ohtsuka to teach forming a multi-layer laminate sheet which may *then* be applied to a metal product to inhibit corrosion (Abstract; col. 6, line 45). As such, Ohtsuka teaches away from the claimed embodiments by teaching *simultaneous* application of the laminate layers instead of *separate* application as claimed.

Furthermore, Applicant respectfully submits that no suggestion or motivation to combine Richards and Ohtsuka in the claimed fashion has been shown sufficiently to establish a prima facie case of obviousness, as discussed in MPEP §2143. Applicant respectfully submits that neither Richards nor Ohtsuka, either explicitly or inherently, provide a motivation or suggestion to combine the two references in the claimed fashion. Moreover, the references explicitly teach away from the combination. For example, Richards teaches a *water-based solution* for providing fire retardance (Abstract of Richards), whereas Ohtsuka teaches a laminate to *protect metal from water* and other environmental elements causing corrosion (Abstract of Ohtsuka). More specifically, Richards teaches that the solution must *impregnate* the wood to provide fire retardant properties (Abstract of Richards), whereas Ohtsuka teaches that glass material of the laminate *shields* the metal product from water (col. 4, lines 8-15). Consequently, Applicant respectfully submits that one skilled in the art would not be motivated to combine Richards and Ohtsuka in the claimed fashion.

For these reasons, Applicant respectfully submits that independent Claim 1 is not rendered obvious by Richards in view of Ohtsuka, thereby overcoming the 35 U.S.C. §103(a) rejection of record. Since dependent Claims 2-9 recite further limitations to the invention claimed in independent Claim 1, dependent Claims 2-9 are also not rendered obvious by Richards in view of Ohtsuka. Therefore, Claims 1-9 are allowable.

CONCLUSION

Applicant respectfully submits that Claims 1-9 are in condition for allowance and Applicant earnestly solicits such action from the Examiner.

The Examiner is urged to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Please charge any additional fees or apply any credits to our PTO deposit account number: 23-0085.

Respectfully submitted,

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